

MEMORANDUM



DATE: March 5, 2012
TO: Interested Parties
FROM: William E. Hamilton
RE: Michigan's Return on Contributions to the Federal Highway Trust Fund

Background

There are several federal transportation taxes dedicated to federal transportation programs. Those taxes include the 18.4 cent per gallon federal gasoline excise tax, the 24.4 cent per gallon federal diesel tax, federal taxes on other motor fuels, on truck tires, on commercial truck and trailer sales, and on vehicles of over 55,000 Gross Vehicle Weight. Those taxes, which currently generate approximately \$35.0 billion each year, are credited to the Federal Highway Trust Fund – the federal fund used to support federal-aid transportation programs.

The Highway Trust Fund includes both a Mass Transit Account and a Highway Account. The Highway Account supports federal-aid highway programs. The federal-aid highway program is typically authorized on a multi-year basis. The current federal authorizing act is called the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

The federal-aid highway program is largely carried out by states in partnership with the federal government. From one perspective, federal-aid highway funds are made available to states to help achieve national transportation priorities. From another perspective, the federal-aid highway funds help support state highway programs and in a sense represent a return to states of transportation tax revenue.

The amount of federal aid each state receives can be more or less than the amount of highway tax revenue attributable to each state. It is widely recognized that there are legitimate reasons some states receive a higher share of attributed Highway Trust Fund contributions than others. For example, federal highway taxes attributable to western states with large land areas and relatively small populations would not be enough to support their share of national highway systems.

Federal transportation taxes are not collected by state governments or, for the most part, from end users. Federal fuel taxes are collected from a small number of fuel suppliers. As a result, each state's tax contribution to the Highway Account of the Highway Trust Fund can only be estimated.

The amount of federal taxes attributable to each state is estimated by the Federal Highway Administration (FHWA) using an analytical model. The FHWA publishes a report on the amount of revenue attributed to each state, as compared to the amount each state receives back through federal-aid highway programs. The FHWA analysis starts with July 1, 1956 when the Highway Trust Fund was established to fund construction of the Interstate Highway System. See <http://www.fhwa.dot.gov/policyinformation/statistics/2010/pdf/fe221.pdf>

The federal-aid highway program provides funds from the Highway Account of the Federal Highway Trust Fund to states within specific program categories. The major federal program categories are:

Interstate Maintenance (IM), National Highway System (NHS), Surface Transportation Program (STP), Congestion Mitigation and Air Quality (CMAQ), Highway Bridge Replacement and Rehabilitation (HBRR), and the Highway Safety Improvement Program (HSIP). Funding for each of these program categories is apportioned to states based on formulas established in the federal authorizing legislation. For example, federal HBRR program funds are apportioned to states based on each state's proportionate share of structurally deficient or functionally-obsolete bridges.

In addition to these six core apportioned programs, SAFETEA-LU provides additional funds to some states based on equity considerations. This additional funding, intended in part to bring "donor states" up to an established minimum rate of return on attributed state contributions to the Highway Account of the Highway Trust Fund, is called the "Equity Bonus." Under SAFETEA-LU the minimum rate of return on a state's imputed contribution to the Highway Trust Fund is as follows: 2005=90.5%; 2006=90.5%; 2007=91.5%; 2008=92.0%; 2009=92.0%.

The Equity Bonus minimum rate of return provisions do not apply to all federal-aid highway programs. A number of discretionary programs are excluded from the Equity Bonus calculation. As a result, the rate of return for some states may still be below the Equity Bonus minimums on a total highway funding basis.

Problems in Rate of Return Calculation

The FHWA's rate-of-return calculation represents how much each state has received in federal-aid highway program apportionments and allocations as compared to imputed contributions to the Highway Account of the Federal Highway Trust Fund. While historically, some states have been considered "donor" or "donee" states, from 2005 through 2010, every state has received more in federal-aid highway program funding than they contributed to the Highway Account of the Highway Trust Fund. In effect, there were no "donor states" during this period.

Since 2005, all states have been receiving more than they contribute to the Highway Account of the Highway Trust Fund because expenditures from the fund have exceeded Highway Trust Fund revenue. Expenditures from the Highway Account of the Highway Trust Fund exceeded dedicated Highway Account revenue in nine of ten years from 2001 through 2010. This has been possible because Congress used balances in the Highway Trust Fund in order to increase transportation spending beyond the level that can be supported by revenue. In addition, the Highway Trust Fund has been augmented with \$28.6 billion federal General Fund transfers – \$8.0 billion in 2009, \$7.0 billion in 2009, and \$13.6 billion (net) in 2010.

The use of federal General Fund revenue to support the Highway Trust Fund is problematic for at least two reasons. First of all, it breaks the connection between transportation funding and highway "user fees." In addition, inclusion of federal General Fund revenue in the Highway Trust Fund distorts the application of the Equity Bonus. The Equity Bonus was intended to consider each state's imputed highway tax contribution to the Highway Trust Fund; it does not consider states' relative contribution to the federal General Fund. As a result, states may receive disproportionately larger or smaller Equity Bonus funding in relation to contributions to the federal General Fund. For example, in FY 2008 New York receive 2.41% of the Equity Bonus distribution while it contributed 8.45% of the federal General Fund. Michigan's FY 2008 share of the Equity Bonus, 2.67% is relatively close to its contribution to the federal General Fund, 2.45%.

For 2010, the most recent fiscal year for which data is available, Highway Trust Fund highway taxes attributable to Michigan totaled \$897.3 million, while federal-aid highway funds apportioned to the state was \$1.164 billion – in other words, for highway taxes contributed to the Highway Trust Fund, Michigan received 130% back in federal highway program funds. This is due to the situation described above – Congress is distributing more for the program than is supported by highway tax revenue.

The alternative way to calculate Michigan's rate of return is to compute Michigan's apportionment divided by the apportionment to all states, then to divide that percentage by the Michigan's percentage contribution to the Highway Trust Fund, i.e. Michigan's contributions divided by the contribution of all States. Computed in this manner, Michigan's 2010 *relative* rate of return is only 90.0%.

Cumulatively, from 1957 through 2010, federal transportation taxes attributable to Michigan total \$25.285 billion, while the state has received \$24.561 billion in program funds – a rate of return of 97%.

Based on FHWA data sheets, Michigan's 2010 computed rate of return, 130%, is 41st out of 50 states, and its cumulative rate of return since 1957 is 97% – 46th out of the 50 states.

Additional information on this subject is available from a Government Accountability Office report dated September 2011, "*Highway Trust Fund – All State Received More Funding than They Contributed in Highway Taxes from 2005 to 2009.*" <http://www.gao.gov/new.items/d11918.pdf>

For a discussion of the use of federal General Fund revenue in the Highway Trust Fund, see "*The Other Highway Funding Crisis*," July 17, 2009, Brookings Institution website. http://www.brookings.edu/opinions/2009/0717_transportation_puentes.aspx

Federal Transit Programs

The Equity Bonus, and the discussion of each state's rate of return on contributions to the Highway Trust Fund, apply only to federal-aid highway programs. There is no minimum rate of return for federal transit programs and little discussion of each state's rate of return relative to Mass Transit Account of the Highway Trust Fund. Expenditures from the Mass Transit Account of the Highway Trust Fund averaged \$5.7 billion from 2003 to 2010; they were \$7.3 billion and \$7.4 billion in 2009 and 2010, respectively.

Although there is not a rate of return figure for transit programs, it is understood that historically, Michigan's share of federal transit program funding has been relatively low. This is due, in part, to the federal transit program's bias towards urban light rail systems. With regard to public transit, Michigan has been exclusively a bus state.

MICHIGAN'S TRUCK-WEIGHT LAW

Trucks are essential to Michigan's economy. Trucks carry about two thirds of all freight tonnage moving in Michigan. (Railroads and Great Lakes freighters carry the remainder). Trucks carry the great majority of Michigan freight by value.

Michigan has a unique system of truck-weight law based on maximum axle loadings, not gross vehicle weight (GVW). *Gross vehicle weight* includes the weights of the truck, cargo, fuel, and driver; *axle loading* is the weight on a single axle. Maximum allowable axle loadings are the same for a standard truck in all states, but Michigan allows use of more axles in combination with lower axle loadings, for a greater gross vehicle weight than other states.

History

Before World War II, Michigan did not limit the number of axles that could be used on trucks. Between 1942 and 1967, there were limits on overall length and per-axle loading, limiting vehicles to a maximum of thirteen axles and a gross weight of 169,000 pounds. Since 1967, the maximum number of axles has been limited to eleven, and per-axle load restrictions have resulted in a maximum gross vehicle weight of 164,000 pounds.

Since 1982, federal law has required all states to allow gross vehicle weights of 80,000 pounds on the Interstate system and other designated highways, and for certain distances off these highways *en route* to terminals. These 80,000 pounds are typically spread over only five axles, including a three-axle tractor with a tandem-axle semi-trailer—the familiar “eighteen-wheeler.”

Michigan and several other states allow gross vehicle weights greater than 80,000 pounds, when spread over more than five axles. These weight laws are allowable under “grandfather clauses” in federal law, but if these laws are repealed, they may not be re-enacted.

Axle Loadings and Michigan Law

Michigan's truck-weight law is designed to control *axle loads* instead of *gross vehicle weight*. Research conducted by the American Association of State Highway and Transportation Officials, the Michigan Department of Transportation (MDOT), and other organizations, has shown that pavement damage is directly related to axle loadings, not gross vehicle weight. Michigan limits the weight allowed on individual axles, depending upon the spacing between them, with a maximum of eleven axles.

The maximum gross vehicle weight allowed on a “federal-weight-law truck” is 80,000 pounds, with four of its five axles carrying 17,000 pounds each and the steering axle carrying 12,000 pounds. The maximum allowable gross vehicle weight on the heaviest “Michigan-weight-law

truck” is 164,000 pounds, which can only be achieved by use of eleven properly-spaced axles. Most of these axles carry only 13,000 pounds each. The alternative to a single Michigan combination carrying 160,000 lbs. on 11 axles is two standard trucks carrying 160,000 lbs. on 10 axles. Pavement research has shown that these two smaller trucks actually cause about 60 per cent more pavement damage than does the single heavier truck, because of their higher axle loadings and the extra weight of an additional tractor at about ten tons.

Population of “Michigan-Weight-Law” Trucks

In December, 2012, there were 79,895 trucks registered under elected-gross-vehicle weight in Michigan, according to the Secretary of State. Of these, 6,385 were registered to carry over 80,000 pounds, and 2,649 were registered to carry over 145,000 pounds. Only 8% of trucks registered in Michigan actually can be heavier than Interstate-standard “eighteen wheelers.” Many trucks operating in Michigan are registered in other states or provinces and the vast majority can carry no more than 80,000 pounds. As a result, it is estimated that no more than 5% of all trucks using Michigan roads carry more than 80,000 pounds when actually operated.

<u>Elected Gross Weight</u>	<u>Number</u>	<u>Annual Registration Fee</u>
0 to 66,000 lbs.	68,142	\$491 to 1,398
66,001 to 72,000	2,612	1,529
72,001 to 80,000	2,756	1,660
80,001 to 90,000	924	1,793
90,001 to 100,000	778	2,002
100,001 to 115,000	710	2,223
115,001 to 130,000	737	2,448
130,001 to 145,000	587	2,670
145,001 to 160,000	2,328	2,894
160,001 to 164,000	<u>321</u>	<u>3,117</u>
All elected-GVW trucks	79,895	\$67,551,411

The operating weight of trucks is not known with precision. It is not known how many truck-miles are traveled by trucks of various weights, and trucks frequently carry less than their elected gross weight. Michigan trucks that carry only farm produce, milk, or logs pay greatly-reduced registration fees not based on gross vehicle weight. There are 40,120 such trucks; it is not known how many farm, log, and milk trucks operate above 80,000 pounds.

Economic Benefits

While the number of trucks operating under Michigan’s axle-weight law is relatively small, they are extremely important to basic industries in this state. The primary users of heavier trucks are the manufacturing, mining, forestry, agricultural, and construction sectors. Specific commodities hauled include automotive and other sheet steel, structural steel, factory tooling and other metal products,

automotive power trains, stone and aggregate, cement, asphalt pavement, petroleum, logs, lumber and other wood products, fertilizer, milk, and sugar beets and some other field crops.

The Michigan Department of Transportation has designed our pavements and bridges to safely accommodate trucks conforming to our axle-weight law. Our axle-weight formula results in less pavement damage and a more productive and efficient transportation system.

Michigan industries and businesses are more competitive due to our truck weight laws. Freight rates are lower in Michigan for commodities that can use our heavier vehicles because fewer vehicles, drivers, and trips are required. Rates for these commodities have been estimated to be up to 50% lower than those found in adjacent states. In addition, less fuel is burned to transport the same weight of cargo, and there is less traffic congestion and less crash risk from fewer vehicles.

Because of market patterns of the commodities hauled, Michigan-weight-law trucks have limited backhaul opportunities. That is, trips are frequently one-way movements of cargo with an empty return. (Examples include logs from the forest to pulp or lumber mills, petroleum to retail service stations, and construction materials from suppliers to construction sites.) As a result, these bulk-commodity haulers operate empty half the time, causing minimal highway wear. The lack of backhaul opportunities means it is important for those industries to move their products efficiently, by using the fewest trucks making the fewest trips possible.

Significant road construction and maintenance savings are realized as a result of reduced transportation costs of stone, cement, asphalt, and salt used on public highways.

Michigan bridges are designed to carry the concentrated weight of Michigan trucks. If Michigan were to impose federal-standard truck weights, the state would waste the considerable investment in bridges designed to carry heavier, more productive trucks, and basic industries would lose a significant cost advantage of locating in this state.

Safety

The use of heavy trucks under Michigan's axle-weight law enhances highway safety. There are fewer trucks on the road because each 164,000-pound truck can carry the cargo of about two and a quarter 80,000-pound trucks. Without Michigan's axle weight law, an additional 10,000 to 15,000 trucks would be on our highways, resulting in a greater exposure to traffic crashes.

Vehicle braking capability and resistance to overturning are improved by having more axles and wheels, each of which is equipped with brakes, and by carrying lower weight per axle.

Congestion on Michigan's highways is reduced because fewer trucks are required to move our freight. Each truck occupies roadway space equivalent to approximately four automobiles. This is particularly important in urban areas where many truck users are located.

Trends

National trends in regulation and research are toward lower axle weights and higher gross vehicle weights. There is some possibility that federal highway law will be changed to permit longer and heavier trucks on the national network. Someday, more of the nation may emulate Michigan's approach to truck-weight law.

The Transportation Research Board (TRB) analyzed a concept, referred to as the "Turner Proposal," to allow larger gross vehicle weights spread over more axles, with each axle carrying less weight than currently allowed under federal law. This is the philosophy adopted by Michigan. The TRB concluded that use of such vehicles would result in a net decrease of \$326 million in annual pavement and bridge costs nationally. Shippers and businesses would save an estimated \$2 billion annually in transportation costs.

States and provinces bordering Michigan also allow certain vehicles heavier than the federal-weight-law trucks. Ontario allows nine-axle vehicles carrying a total of 140,000 pounds. Ohio, Indiana, and Wisconsin issue permits allowing heavier Michigan-style trucks to travel on selected highways. This allows access by Michigan shippers to the steel industry in Gary, bulk rail and marine terminals in Toledo, and the forest industry in northern Wisconsin. Other states along the Canadian and Mexican borders increasingly allow heavier trucks from their neighboring countries, either routinely or by permit.

In Canada, the provinces of Ontario, Québec, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland have recognized the importance of uniformity with Michigan law. Because of their large volume of trade with Michigan they are working to establish more uniform truck regulations. The North American Free Trade Agreement (NAFTA), signed by Canada, the United States, and Mexico, requires efforts to harmonize regulations relating to truck sizes and weight. Canada and Mexico allow trucks heavier than 80,000 pounds. Canadian provinces generally allow heavier axle loadings, while Mexico does not regulate axle loadings, only gross vehicle weights. MDOT participates on NAFTA committees addressing these issues.

Impacts of Adopting the Federal Weight Law

Periodically it is suggested that Michigan should adopt federal weight law and reduce gross vehicle weights. There would be several impacts of such action, including—

- more trucks on Michigan's roads
- greater roadway congestion, particularly in urban areas
- more crash exposure as a result of more trucks
- increased costs to Michigan consumers for goods such as gasoline, milk, lumber, agricultural products, and products containing steel
- decreased competitiveness for Michigan's steel, manufacturing, mining, forestry, and

- agricultural industries due to increased transportation costs
- more damage to pavements due to increased axle loadings
- increased costs for building and maintaining roads

Summary

Michigan's roads and private truck fleets form a unified transportation system designed to perform at a high level for Michigan firms and producers. Pavements are designed with a specific axle loading in mind, and bridges for a certain gross vehicle weight. Truck operators invest in vehicles designed to operate at certain weights. It is not possible to change any one part of the pavement–bridge–truck system without large economic losses, and without throwing away the investment in the other two parts of the system.

If pavements fail, it is because they have exceeded their designed life, or because funds were unavailable for necessary preservation actions.

The Michigan Department of Transportation believes that Michigan's truck weight law is based on sound research and results in less highway damage and improved safety relative to federal weight law. Several of this state's key industries benefit by being able to transport their goods much more efficiently and economically. Recent trends and studies suggest that the federal government and other jurisdictions are beginning to recognize the validity and benefits of the approach Michigan has used for decades.

Michigan Department of Transportation
Bureau of Transportation Planning, Intermodal Policy Division

Edition of February 6, 2013

Michigan Department of Transportation

State Transportation Investment Comparison



January 2013

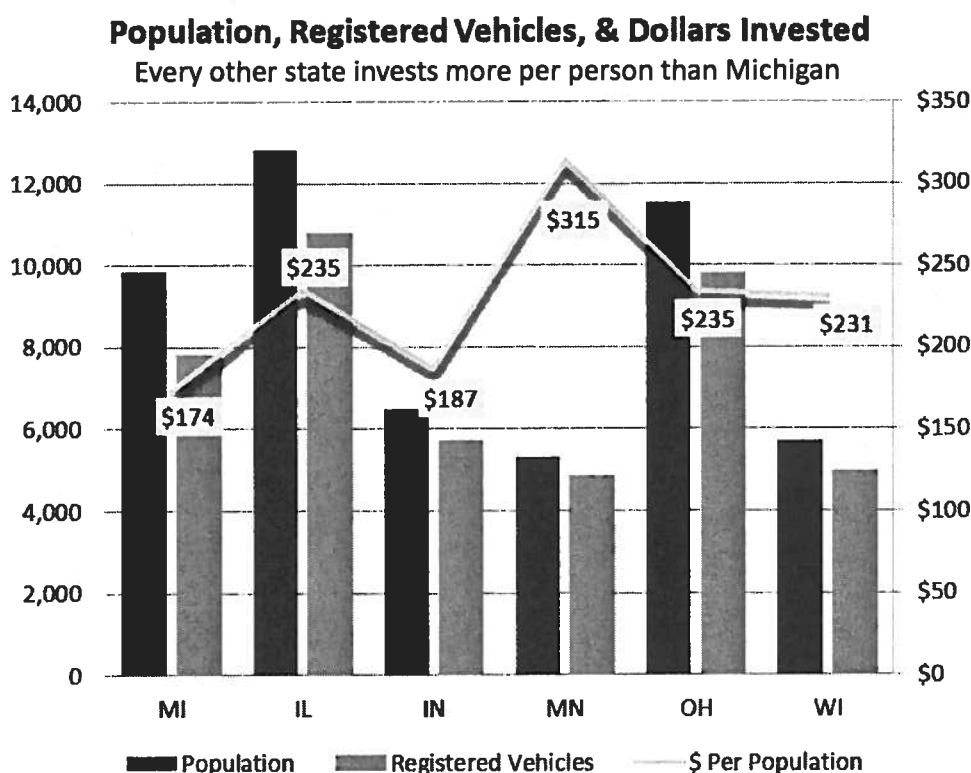


INTRODUCTION

At the request of Michigan's Legislative leaders, the Michigan Department of Transportation (MDOT) conducted a peer review of neighboring states in the Great Lakes Region to assess investment levels in state transportation funding and how funding is allocated. The states selected for this assessment include Illinois, Indiana, Minnesota, Ohio, and Wisconsin. Additionally, MDOT conducted research on statewide vehicle repair costs, and repair costs to individual drivers in the six states. The following graphs provide a summary of the major findings. Page 6 includes a summary table, providing the complete assessment of all six states, including Michigan.

TRANSPORTATION INVESTMENT PER CAPITA

Michigan ranks last when comparing its investment in transportation infrastructure to that of its Midwestern peers. Michigan ranks third in population and registered vehicles, but invests less per person than any of the five other states in the region.

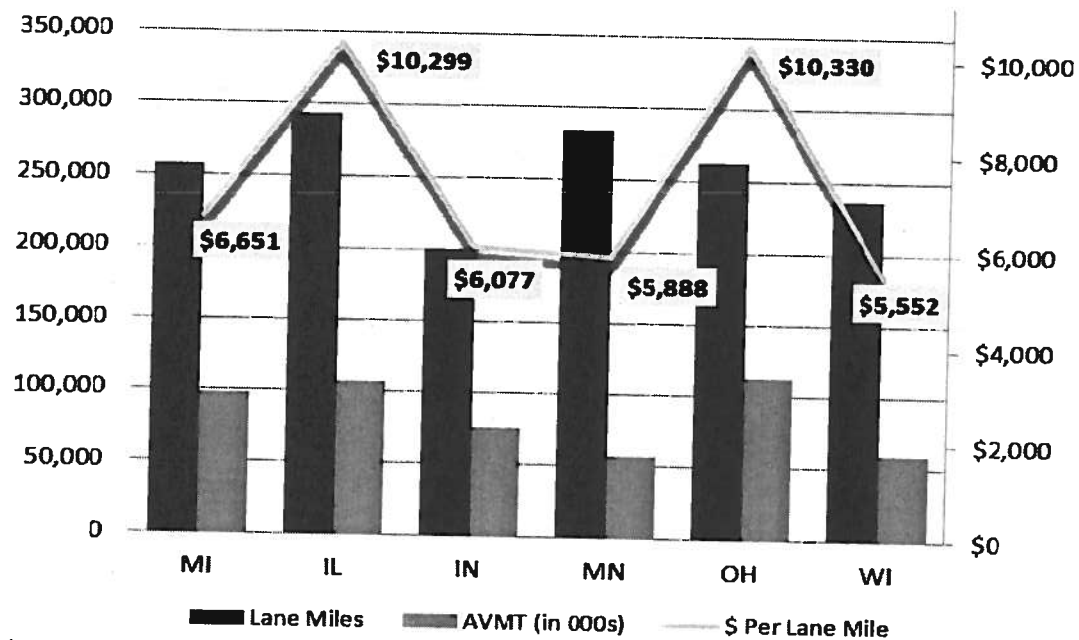


TRANSPORTATION SYSTEM SIZE, TRAFFIC & INVESTMENT

Michigan's transportation system is comparable in size (*lane miles) and in total traffic (**AVMT) to Ohio and Illinois. However, Michigan invests significantly less than both states. In fact, Michigan invests approximately \$1 billion less in transportation overall than Ohio each year, and \$1.3 billion per year less than Illinois. Ohio and Illinois invest over \$3,500 more per lane mile than Michigan.

System Size, Traffic, & Dollars Invested

MI system size & traffic are like OH and IL, but fewer dollars are invested per lane mile

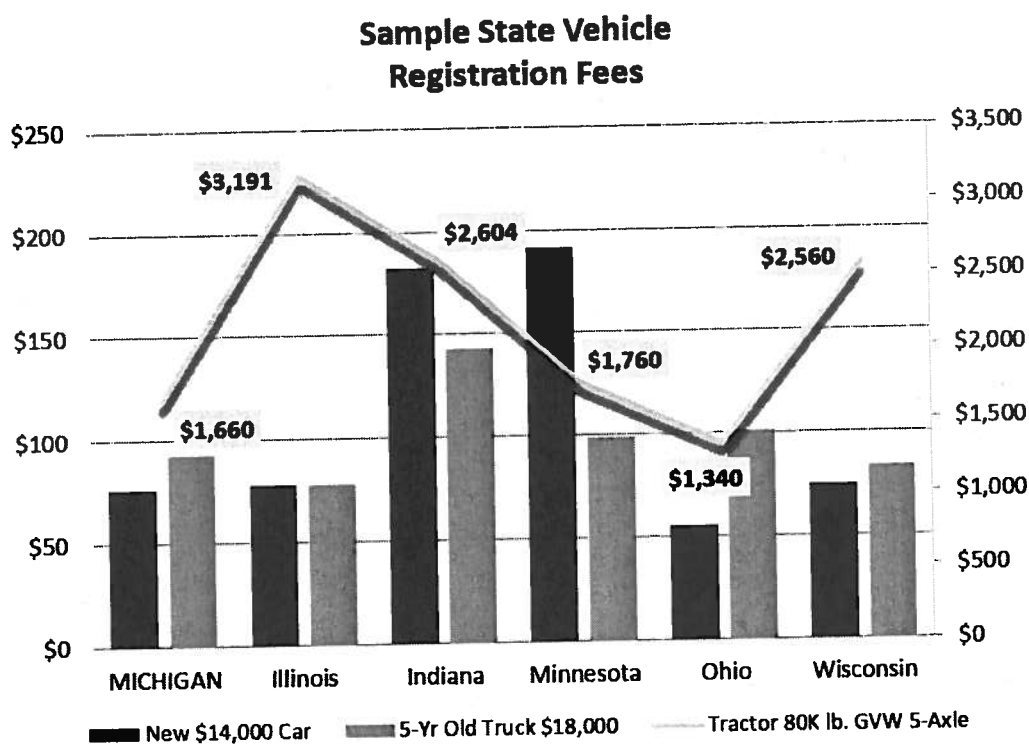


*Lane miles is total length and lane count of a given highway or roadway.

**AVMT is Annual Vehicle Miles Traveled (list in thousands).

STATE VEHICLE REGISTRATION FEES

MDOT conducted a survey of the five neighboring Great Lakes states regarding vehicle registration fees. The graph below reflects a sampling of three motor vehicle types used to ascertain differences in registration fees. The results reveal that Michigan ranks fourth in the comparison of state vehicle registration fees for the sample group. Michigan has similar registration fee levels for automobiles as Illinois and Wisconsin, but both states have significantly higher registration fees for trucks. Registration fees for trucks are over \$1,500 per year higher in Illinois, and \$900 per year higher in Wisconsin.



*Survey conducted by MDOT staff in 2008.

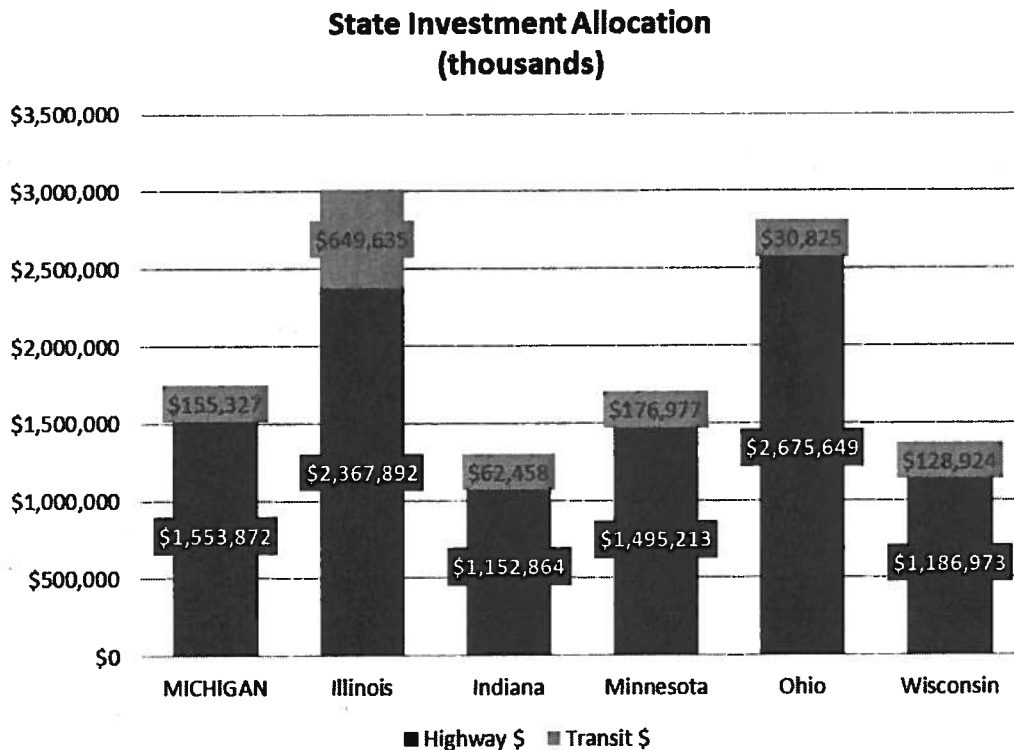
STATE TRANSPORTATION INVESTMENT ALLOCATION

Highways

Michigan's transportation size is comparable to Ohio and Illinois. However, Michigan invests \$1.1 billion per year less for highways than Ohio; and over \$800,000 per year less for highways than Illinois. Michigan's state investment for highways is comparable to Minnesota, but the Michigan highway system serves over 40 million more annual vehicle miles of travel (AVMT) and 3.5 million in population.

Transit

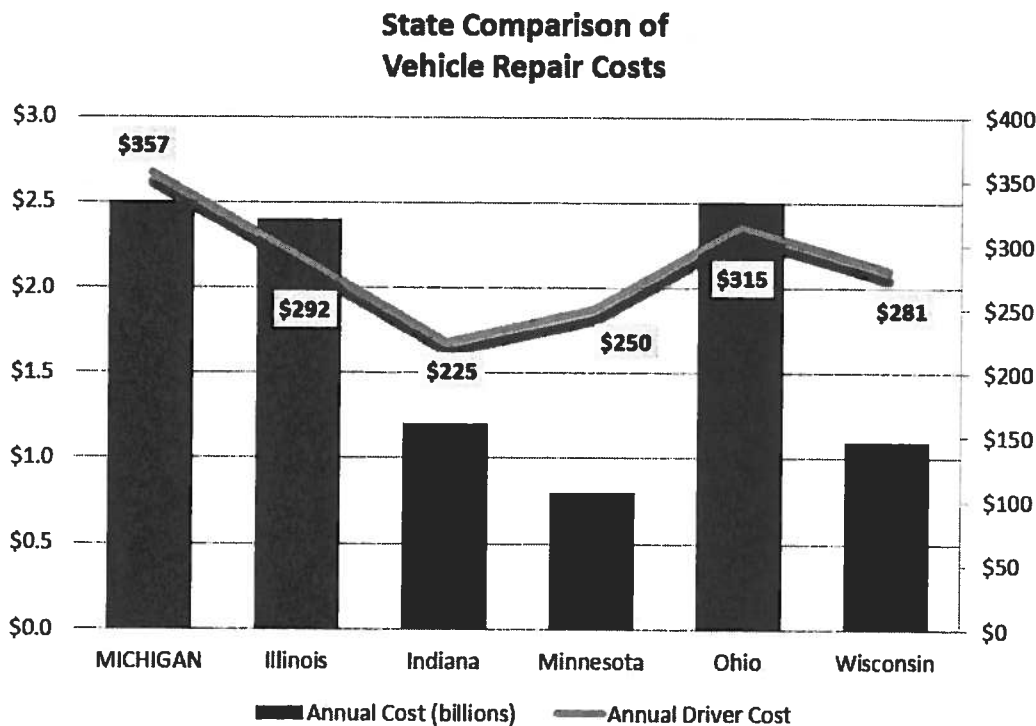
Michigan's population served by transit is considerably larger than both Minnesota and Wisconsin, but Michigan invests less in transit than Minnesota, and only slightly more than Wisconsin.



STATE COMPARISON OF VEHICLE REPAIR COSTS

MDOT analyzed how the five neighboring Great Lakes states compare to Michigan regarding vehicle repair costs that could be attributable to pavement condition. The information for this comparison was derived from the TRIP, a non-profit national transportation research organization. Information was collected for both statewide totals and individual drivers.

The findings reveal that Michiganders pay more for vehicle repairs due to poor roads. Michigan ranks first for annual individual repair costs to registered drivers, at \$357 per driver. Michigan also ranks first (tied with Ohio) in total statewide annual repair costs. Michigan drivers spend over \$84 per year more in repair costs than the average of the five comparison states. Michigan drivers even spend as much as \$132 per year more in repair costs than neighboring Indiana.



*Source: <http://www.tripnet.org> - Annual Repair Costs from driving roadways in need of repair; and MDOT staff.

Michigan Department of Transportation
State Transportation Investment Comparison

STATE TRANSPORTATION INVESTMENT COMPARISON SUMMARY

STATE	STATE PROFILE (thousands)				STATE FUEL TAXES				STATE INVESTMENT SOURCES (thousands)				STATE INVESTMENT ALLOCATION (thousands)									
	Registered Vehicles	Centerline Miles	Lane Miles	Annual VMT	Excise	Add'l ¹	Total	Diesel Taxes	Excise	Add'l ¹	Total	State Fuel Tax	Vehicle Registration	Tolls	Total	Highway \$ Amount	% Total	Transit \$ Amount	% Total	Total Funding	Funding Per Pop.	Funding Per Lane Mile
MICHIGAN	9,834	7,822	97,567,000	122	257	18.7	18.1	36.8	15.0	*20.8	35.8	\$962,066	\$842,115	\$38,831	\$1,843,012	\$1,553,872	90.9%	\$155,327	9.1%	\$1,709,199	\$174	\$6,651
*Environmental Fee of .875 cents per gallon, plus sales tax at rate of 6% of retail price																						
Illinois	12,831	10,789	105,788,000	140	293	19.0	*20.1	39.1	21.5	*23.2	44.7	\$1,231,452	\$1,334,573	\$685,687	\$3,221,712	\$2,367,892	78.5%	\$649,635	21.5%	\$3,017,527	\$235	\$10,299
*Environmental Fee of 1.1 cents per gallon, plus sales tax at rate of 6.25% of retail price																						
Indiana	6,484	5,698	75,761,000	97	200	18.0	*20.0	38.0	16.0	34.3	50.3	\$817,024	\$233,230	\$185,068	\$1,215,322	\$1,152,864	94.9%	\$62,458	5.1%	\$1,215,322	\$187	\$6,077
*Inspection Fee of 1 cent per gallon, plus sales tax at rate of 7% of retail price																						
Minnesota	5,304	4,848	56,632,000	138	284	28.5	*0.10	28.6	28.5	*0.10	28.6	\$807,341	\$531,551	\$379,477	\$1,738,369	\$1,405,213	88.4%	\$176,977	10.6%	\$1,672,190	\$315	\$5,888
*Inspection Fee of 0.1 cents per gallon for gasoline and diesel																						
Ohio	11,537	9,800	111,836,000	123	262	28.0	0.0	28.0	28.0	0.0	28.0	\$1,728,628	\$970,218	\$235,957	\$2,934,803	\$2,675,649	98.9%	\$30,825	1.1%	\$2,706,474	\$235	\$10,330
Wisconsin	5,687	4,948	59,420,000	115	237	30.9	*2.0	32.9	30.9	*2.0	32.9	\$851,750	\$611,299	\$0	\$1,563,049	\$1,186,973	90.2%	\$128,924	9.8%	\$1,315,897	\$231	\$5,552
*UST Fee of 2.0 cents per gallon for gasoline and diesel																						

Data Sources: Information used in this comparative analysis was derived from the Michigan Department of Transportation; US Census Bureau; Federal Highway Administration; American Petroleum Institute. All state transportation revenue figures are from Fiscal Year (FY) 2010.
Additional column for gasoline and diesel taxes is approximate given variable sales taxes. VMT = Vehicle Miles Traveled; Centerline Miles and Lane Miles are total for entire state.

Sample State Vehicle Registration Fees

State	New Car \$14,000	5-Yr Truck \$18,000	Tractor 80K lb. \$16,000	GVW 5-Axis \$16,000
MICHIGAN	\$76	\$93	\$1,660	
Illinois	\$78	\$78	\$3,191	
Indiana	\$182	\$143	\$2,604	
Minnesota	\$191	\$99	\$1,760	
Ohio	\$55	\$101	\$1,340	
Wisconsin	\$75	\$84	\$2,560	

Source: Research conducted by MDOT staff (2008).

*State Comparison of Vehicle Repair Costs

State	Ann. Cost (\$billions)	Ann. Cost Ann. Cost Driver
MICHIGAN	\$2.5	\$357
Illinois	\$2.4	\$292
Indiana	\$1.2	\$225
Minnesota	\$0.8	\$250
Ohio	\$2.5	\$315
Wisconsin	\$1.1	\$281

Source: <http://www.bipnrl.org>, MDOT Staff.

*Annual Repair Costs from driving roadways in need of repair.

Six State Comparison Summary - Key Findings for Michigan

- Michigan's state transportation investment based on population ranks last of all states.
- Michigan ranks 5th in Excise Tax on Gasoline and Diesel (less than one cent more than Indiana).
- Michigan ranks first in total annual vehicle repair costs statewide, and to registered drivers.
- Michigan's road system size is comparable to Ohio; but Michigan invests over \$1 Billion less in transportation.
- Michigan's state investment for highways is comparable to Minnesota, but its system serves over 40 Million more VMT.
- Michigan ranks 4th in a comparison of state vehicle registration fees.
- Michigan's neighboring states (IL, IN, OH) generate significantly more state transportation investment from tolling.

